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(54) **Gaming machine having player control devices**

(57) In one embodiment, a gaming machine (10) carries out a main game, such as a spinning reel type game, either using physical reels or simulated reels on a video screen. A special combination of symbols activates a video bonus game. The bonus game comprises a plurality of N unknown options (84-88) in the form of icons, where the player may only make M choices. The unknown options may include, for example, different award credits (89). The options may be presented as hidden values behind doors or using other attractive presentation. In one embodiment, a gaming machine includes a separate touch screen (42) located in an area where buttons are typically located. The touch screen virtual buttons may be both configurable by the player and configurable by the gaming machine. In one embodiment, the touch screen is 3-dimensional in that some areas for being touched by the player are raised to give the impression of a physical button. Each raised portion may give tactile feedback to the player when pressed. A joystick (102) may also be provided on the gaming machine. In one embodiment, the player is given extra credits by the gaming machine if large denomination currency is inserted into the gaming machine.

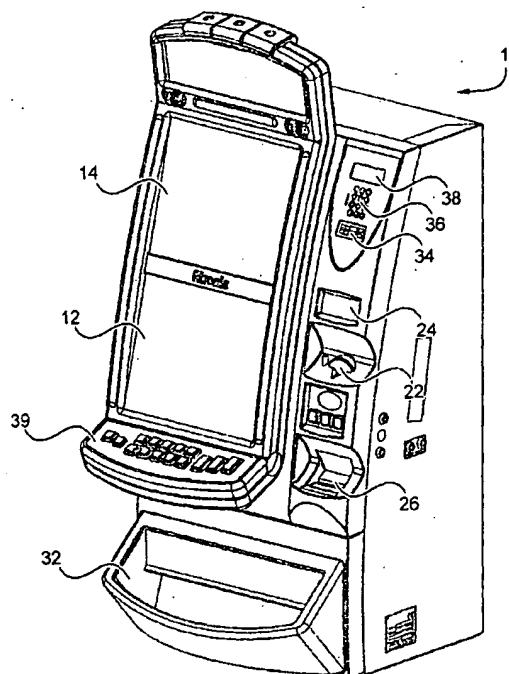


Fig. 1

Description

[0001] This invention relates to gaming machines and, in particular, to player control devices in gaming machines.

[0002] A typical gaming machine found in casinos carries out a single game, such as displaying rotating reels having symbols, where the resulting symbol combinations correspond to awards to be paid to the player. Such typical gaming machines use physical buttons to receive player inputs, such as to spin reels, bet, and cash out. Some video gaming machines use a touch screen as the main video screen to allow the player to make selections by touching virtual buttons (or other icons) on the touch screen.

[0003] Many newer gaming machines provide a bonus game where, for a special symbol combination, a secondary (or bonus) game is played that is different from the main game. This bonus game adds player excitement and, thus, results in a more popular and profitable gaming machine.

[0004] In one embodiment, a gaming machine carries out a main game, such as a spinning reel type game, either using physical reels or simulated reels on a video screen. A special combination of symbols activates a video bonus game. The bonus game displays a plurality of N unknown options in the form of icons, where the player may only make M choices, where M is less than or equal to N. The unknown options may include, for example, different award credits. The options may be presented as hidden values behind doors or using another attractive presentation. The N values behind the closed doors are displayed to the player in an arrangement unrelated to the arrangement of the unknown options so the player sees what she can possibly win. The player then makes her M selection(s) to win the award(s) behind the door(s). There may be additional levels of the bonus game.

[0005] In another embodiment, displayed on the same screen is a number M of different multiplier values. For each option selected, the player applies one of the known multiplier values in the hope of maximizing her award after making M choices.

[0006] Numerous other embodiments are described relating to providing the player unknown options and allowing the player to select a subset of the options.

[0007] The unknown options may include credits, monetary values, multipliers, symbols to be collected to form a combination, entry into another type of bonus game (such as a double or nothing game), or an end-of-game. Additional features may also be provided in conjunction with the bonus game such as the machine revealing what is behind one of the doors and allowing the player to select that door or another door, or the machine offering clues to the various options, or other type of feature.

[0008] In one embodiment, a gaming machine includes a main display and a separate touch screen lo-

cated in an area where buttons are typically located. The touch screen has virtual buttons that may be both configurable by the player and configurable by the gaming machine. For example, the player can locate the virtual buttons on the right or left side of the touch screen, change the size of the virtual buttons, delete virtual buttons not being used, select a language identifying the buttons, or select sounds when touching the buttons. The machine's computer can change the display on the touch screen to display the acceptable denominations of the machine or select a different set of virtual buttons depending on the game being played. Many more options are available. Many options can be provided to the player on the touch screen, as compared to physical buttons, since all options do not have to be present at all times.

[0009] In one embodiment, the touch screen has raised portions that can be pressed like physical buttons. Thus, the player is provided with the familiarity of physical buttons, while the touch screen control panel retains the flexibility as described above.

[0010] In one embodiment, a joystick is provided on the gaming machine to enable the player to perform game control functions that would normally be difficult using conventional gaming machine controllers.

[0011] In one embodiment, the player is given extra credits by the gaming machine if large denomination currency is inserted into the gaming machine. This typically results in longer playing times.

[0012] The below described drawings are presented to illustrate some possible examples of the invention.

Fig. 1 is a perspective view of one of many examples of gaming machines that can incorporate the present invention.

Fig. 2 is a block diagram of various key components in the gaming machine of Fig. 1.

Fig. 3 is a simplified screen display of a first type of bonus game that may be played on the machine of Fig. 1, where award values are hidden behind closed doors, and the possible awards are displayed to the player.

Fig. 4 is a screen display where the options include multipliers that multiply an award value.

Fig. 5 is a screen display where the options include an award option, an option that takes the player to a different bonus game, and an option that ends the bonus game.

Fig. 6 is a screen display that would result if the player chose the option in Fig. 5 that took the player to another bonus game.

Fig. 7 is a screen display where the options include

symbols, and the player plays, for example, five rounds of the bonus game to accumulate, for example, three of the same type of symbols to win a bonus award.

Fig. 8 is a screen display with awards behind the five option doors, where the player chooses a door and applies one of the three multipliers to the selected option in the hope of maximizing the total award after the three selections.

Fig. 9 illustrates one embodiment of the screen display after the player has made her three selections from the screen in Fig. 8.

Fig. 10 is a perspective view of one example of a gaming machine incorporating a joystick.

Fig. 11 is a perspective view of one example of a gaming machine incorporating a separate touch screen for player inputs.

Figs. 12, 13, 14, and 15 illustrate touch screen displays showing the flexibility of using a touch screen for player inputs.

Fig. 16 is a perspective view of a touch screen for player inputs, where portions to be touched by a player are raised.

[0013] Although the inventions of Figs. 3-9 can typically be implemented by installing a software program in most types of modern video gaming machines, one particular gaming machine platform will be described in detail.

[0014] Fig. 1 is a perspective view of a gaming machine 10 that incorporates the present invention. Machine 10 includes a display 12 that may be a thin film transistor (TFT) display, a liquid crystal display (LCD), a cathode ray tube (CRT), or any other type of display. A second display 14 provides game data or other information in addition to display 12. Display 14 may provide static information, such as an advertisement for the game, the rules of the game, pay tables, paylines, or other information, or may even display the game itself along with display 12. Alternatively, the area for display 14 may be a display glass for conveying information about the game.

[0015] A coin slot 22 accepts coins or tokens in one or more denominations to generate credits within machine 10 for playing games. An input slot 24 for an optical reader and printer receives machine readable printed tickets and outputs printed tickets for use in cashless gaming. A bill acceptor 26 accepts various denominations of banknotes.

[0016] A coin tray 32 receives coins or tokens from a hopper upon a win or upon the player cashing out.

[0017] A card reader slot 34 accepts any of various

types of cards, such as smart cards, magnetic strip cards, or other types of cards conveying machine readable information. The card reader reads the inserted card for player and credit information for cashless gaming. The card reader may also include an optical reader and printer for reading and printing coded barcodes and other information on a paper ticket.

[0018] A keypad 36 accepts player input, such as a personal identification number (PIN) or any other player information. A display 38 above keypad 36 displays a menu for instructions and other information and provides visual feedback of the keys pressed.

[0019] Player control buttons 39 include any buttons needed for the play of the particular game or games offered by machine 10 including, for example, a bet button, a repeat bet button, a play two-ways button, a spin reels button, a deal button, hold cards buttons, a draw button, a maximum bet button, a cash-out button, a display paylines button, a display payout tables button, select icon buttons, and any other suitable button. Buttons 39 may be replaced by a touch screen with virtual buttons, as described with respect to Fig. 11.

[0020] Fig. 2 illustrates basic circuit blocks in a suitable gaming device. A control unit (CPU 60) runs a gaming program stored in a program ROM 63. A coin/credit detector 61 enables the CPU 60 to initiate a next game. A pay table ROM 64 detects the outcome of the game and identifies awards to be paid to the player. A payout device 62 pays out an award to the player in the form of coins upon termination of the game or upon the player cashing out. A payout may also be in the form of a coded paper ticket, credits on a smart card or magnetic strip card, or in any other form. A display controller 65 receives commands from the CPU 60 and generates signals for the various displays 66. If a display 66 is a touch screen, player commands may be input through the display screen into the CPU 60.

[0021] Fig. 3 is a simplified bonus game display, which may be displayed on display 14 or display 12 in Fig. 1 after the main game has generated a particular outcome that automatically activating the bonus game. Such an outcome may be a special combination of symbols obtained in a simulated rotating reel type game. Alternatively, if the main game is a card game, the bonus game may be activated after a particular hand is obtained, such as a full house or higher. Virtually any type of game may be played as the main game and any selected outcome of the main game may activate the bonus game. Such triggering events activating a bonus game are well known, and the hardware/software used to initialize the bonus game may be conventional.

[0022] The bonus game may be presented to the player on the same screen as the main game or on a different screen. After the special outcome of the main game is achieved, the display 12 or 14 may briefly introduce and explain the bonus game.

[0023] In one example of the bonus game, shown in Fig. 3, three doors 68, 69, 70 are presented to the player.

The three award values (e.g., credits) behind the doors are also displayed to the player in display area 72 so that the player now knows the possible awards but not where they are hidden. The player then chooses one of the doors, hoping to get the highest award.

[0024] Various means may be used to allow the player to make her selections. In one embodiment, the display screen is a touch screen, where the player simply touches one of the doors, and a conventional touch screen sensor controls the game program to reveal what is behind that door. Other types of player controls may include three buttons, where the player presses the button corresponding to one of the doors to select that door.

[0025] A display 76 is also provided to show the player how much she has just won, and another display 78 is provided to show the player the total accumulated credits.

[0026] The excitement of the player knowing the possible values to be won coupled with the player's own interaction with the game creates a very high degree of excitement for the player.

[0027] In one embodiment, after the bonus game of Fig. 3, the bonus game then proceeds to a next level, providing the player three more doors and three more possible awards to select from. In one embodiment, there are five bonus levels where, after the fifth bonus level, the bonus game automatically ends. In one embodiment, the bonus values increase at each level.

[0028] In another embodiment, one or more of the options includes an end of bonus game option where, if the player selects that option, the bonus game ends. The player may continue through the various levels of bonus games until the player selects the end of bonus game option.

[0029] Other types of bonus games are presented below which involve a high degree of player interaction.

[0030] Fig. 4 illustrates a bonus game also involving three doors 68-70, where the options to be selected are multipliers 80 that multiply an award value. The multipliers are displayed. The award value may be the initial value awarded upon the main game generating the special outcome that gave rise to the bonus game. All features described with respect to Fig. 3 may also be applied to the bonus game of Fig. 4.

[0031] Fig. 5 illustrates another type of bonus game also involving three doors 68-70, where the options 82, displayed to the player, include an award value, an end bonus game option, and an option that takes the player into a different type of bonus game (e.g., the "Treasure Room"). If the player selects a door that has the award, the player gets that award. If the player selects the end bonus game door, the bonus game ends, and the main game can then again be played by the player. If the player selects the door that reveals the Treasure Room, the display changes to a different type of bonus game, such as that shown in Fig. 6.

[0032] Fig. 6 is a sub-bonus game that the player has chosen by selecting the Treasure Room option in Fig.

5. The Treasure Room option may also provide the player unknown options with various types of awards. These options are revealed in Fig. 6 for the sake of clarity. As seen, certain options award the player an award, certain options end the Treasure Room bonus game and bring the player back to the previous bonus game, and certain options end the bonus round so as to bring the player back to the main game. As would be understood by those skilled in the art, any type of game involving player selection may comprise any of the bonus games.

[0033] Fig. 7 shows another type of bonus game with three doors 68-70, where the options include three different types of symbols, in this case X, Y, and Z. The player chooses one of the doors and that symbol is held in a memory. The player has five chances to match three of the same symbols. The award for matching three X's may be different from the award for matching three Y's or three Z's.

[0034] In all of the above embodiments, there may be more or less doors or presentations other than doors, where the player selects unknown options. Any type of icon may be used to "hide" an element (e.g., credits, symbols).

[0035] Fig. 8 illustrates a type of game with even more player interaction, where N doors 84-88 or other icons are presented to the player, each door having a different unknown award value. In one embodiment, the possible award values for all the doors are displayed to the player in area 89. In this example, the award values are 30, 50, 70, 90, and 150 credits. The player gets to make M choices, where M is less than N. In the example given, the player is allowed to make three choices out of the five options. The player is also presented with M multipliers, in this case x2, x5, and x20. The player chooses one of the five options to reveal the amount and then applies a multiplier to that selected amount. The multiplier then cannot be used again. For example, as illustrated in Fig. 9, the player's first choice reveals an award of 30. The player then selects the multiplier of x2 to be applied to the award of 30 to result in an award of 60. The player then chooses another one of the doors to reveal the award of 70 and applies to it the multiplier of x20 to award a value of 1400. On the next selection, the player chooses the award of 150, and applies to it the multiplier x5 to give the player an award of 750. The bonus game then ends with the player winning a bonus of 2010 credits.

[0036] In another embodiment, M is less than or equal to N.

[0037] If the gaming machine utilizes a touch screen, the player touches one of the options to reveal the award behind that door, then presses one of the multipliers to multiply that award by the selected multiplier. Other type of controls may include a track ball or buttons.

[0038] In another embodiment, similar to Fig. 8, the five unknown options may be multipliers, and the player may apply three different displayed credit values (e.g., 30, 70, and 150) to a selected multiplier.

[0039] The game of Fig. 8 may include an end of bonus game selection and all of the other types of features described with respect to the other embodiments. The game of Fig. 8 may have a plurality of levels.

[0040] In one embodiment, a player-selection game has five levels, where the last level is the Treasure Room (or other feature) having the highest bonuses. In one embodiment, the Treasure Room has various hidden values ranging from low to high, and the player may only make X choices prior to the bonus game ending, where X is less than the possible choices. The game ends after the player has completed the Treasure Room stage. The Treasure Room may be any type of game.

[0041] The player-selection games may be configured to involve player strategy in making choices. During play of the various levels, the game may reveal to the player what is behind one of the doors (e.g., a credit award that also brings the player to the next level), and the player must decide whether to select that door or another door. One of the hidden elements may be an end-of-game, while the remaining hidden element may grant an award that is higher than the revealed award and bring the player to the next level, where the next level generally awards higher amounts. The game may require the player to pay a certain amount to see what is behind one of the doors. Alternatively, the game may require the player to answer a question or a riddle before the game reveals what is behind one of the doors. The game may even provide a clue (e.g., in the form of a riddle) that leads the player to the highest value door. The player may even choose a category of questions to be answered in order to reveal what is behind a door. Instead of questions, the game may offer a gamble for the player to be shown what is behind a door, such as allowing the player to choose red or black and the game randomly selecting either red or black. If the player is correct, the element behind a certain door is revealed. Such a sub-game may involve any form of game of chance.

[0042] In one embodiment, there are more than three doors, and more than one door may be opened for a player by playing the strategic games.

[0043] Fig. 10 is a perspective view of a gaming machine that incorporates a joystick 102 in accordance with one embodiment of the present invention. Other aspects of the machine may be similar to the machine of Fig. 1 and are given the same element numbers.

[0044] The game played may be a spinning reel type game, either using physical reels or simulated reels on a video screen, or the game may be a card game, such as poker. Any other game, including bonus games, may be played.

[0045] Joystick 102 may be used to control a cursor or other object displayed on display 12 or 14. A cursor may be used to select an icon or other option displayed. In certain games, such as a maze type game, joystick 102 may be used to control the direction of a character or other object through the maze. Such a game may be

a bonus game played after a certain outcome of a main game, such as after a certain symbol combination in the main game. Joystick 102 and software for converting the joystick 102 movement to usable signals for the gaming machine's CPU may be conventional.

[0046] Buttons 39 may be deleted and joystick 102 may be used for all player inputs. In one embodiment, joystick 102 has a select button at its tip. The select button may be the round knob at the end of joystick 102 in Fig. 10. The button is pressed to make a player selection. In another embodiment, pushing down on joystick 102 controls a switch to make the player selection.

[0047] Joystick 102 may be centrally located so as not to favor left-handed or right-handed players. The joystick may take different forms, such as a wider form to enable the player to use her palm to move the joystick.

[0048] Joystick 102 may also be replaced with a trackball to achieve similar results.

[0049] Fig. 11 illustrates the gaming machine of Fig. 1 but with buttons 39 replaced by a touch screen 42. Touch screen 42 may be a conventional type, such as a touch-sensitive overlay on a TFT, LCD, CRT, or other display device. The overlay may detect a change in capacitance at X-Y coordinates by the player touching a position on the touch screen. Conventional circuits detect the touched X-Y position and associate the position with a function to be carried out. Any appropriate virtual buttons for player input may be displayed on touch screen 42, where actuation of any virtual button is by touching the virtual button. Touch screen 42 is conveniently located on an angled shelf and does not take up any of the main display 12 screen area. Accordingly, the game's display program is not affected by changes to the touch screen 42 display, and the entire main display 12 may be used for the game. Providing a touch screen 42 for player input provides many advantages, some of which are described below.

[0050] Conventional gaming machines that display virtual buttons on the vertical main display require the player to tilt her hand upward to touch the screen with the pad of her fingertip. This is especially inconvenient if the player has long fingernails. By providing the virtual buttons on an angled shelf, the player can simply rest her hands on the shelf while touching the virtual buttons.

[0051] Joystick 102 of Fig. 10 can be used in combination with touch screen 42. Any combination of joystick 102, buttons 39, and touch screen 42 can be used in the gaming machine.

[0052] Fig. 12 illustrates a possible display on touch screen 42. The display is for a conventional spinning reels type game, either on a video screen or using motor-driven reels. The basic virtual buttons include spin reels, bet max, bet one, and cash-out. Other buttons that may be used are generally designated X, Y, and Z. The player may touch any of the virtual buttons to perform its function. Also included are denomination virtual buttons for \$1, 25¢, and 5¢. The player may touch a denomination button to select the value of a single credit.

This affects the amount bet and the amount won during each game. To encourage players to select a high denomination credit value, the machine's processing circuitry may give the player extra credits (greater than the monetary value inserted into the machine) for selecting a high denomination credit value. In one embodiment, generating such extra credits are contingent upon the player inserting a high value bill into the machine.

[0053] In one embodiment, the player is given extra credits by inserting high value currency into the machine. Such a "discount" may be advertised on the display monitor, the display glass, or touch screen 42 to encourage players to insert high value currency. Examples of discounts may be 6% extra credits for inserting \$100, 5% extra credits for inserting \$20, etc. To prevent players from immediately cashing out of the machine, the discount may only apply if the player eventually wagers all of the credits on the game (e.g., for a \$1 machine, the player must ultimately wager the 106 credits from the \$100 bill in order to get the 6 extra credits). Other techniques may also be used to prevent the player from prematurely cashing out.

[0054] Some advantages of touch screen 42 include:

Player can select the language identifying the buttons and the language for any displayed messages;

Player can select which buttons to be displayed;

Player can select the location of the individual buttons for ease of touching;

Player can select the color, size, and shape of the buttons;

Machine can display only those buttons that are immediately of use to the player, thus simplifying the display;

Machine can highlight buttons (e.g., make brighter) that are appropriate to touch;

Machine may change the buttons for different games to be played;

Machine may present advertising or other messages on touch screen 42 (in the language selected by the player), such as how to use touch screen 42 to control the various button options;

Machine may display an elaborate player controller when appropriate, such as arrows for controlling a character through a maze.

[0055] Fig. 13 illustrates another display on touch screen 42. The player may initially be presented with a default screen and be asked to choose certain options by touching an icon associated with the desired option.

One option may be to only display essential virtual buttons, such as spin reels, bet max, bet one, and cash out. Messages or an advertisement may be displayed in the unused area. Using a menu driven display, the above-described options may be simply presented to the player for selection. The button-set options for touch screen 42 may be presented on touch screen 42 or on the main display 12.

[0056] Fig. 14 illustrates touch screen 42 displaying an entirely new set of buttons in response to the player choosing to play a poker game rather than a spinning reels type game.

[0057] Fig. 15 illustrates touch screen 42 displaying buttons as a result of the player achieving a bonus outcome in the main game and the machine now allowing the player to play a bonus game for an additional award. The bonus game may be a maze type of game, previously described, or any other game.

[0058] Touch screen 42 is also useful for simplifying the selection of paylines and bet per line of different games played on the same machine. For example, one game selected by the player may be a basic 3-payline game, while the next player may select to play a 15-payline game. The options provided by touch screen 42 would change for different games to not give inapplicable options to the player.

[0059] As seen, anything can be displayed on touch screen 42, resulting in a very flexible and desirable gaming machine for both the players and the casino. By enabling the machine to be easily configurable for different currencies and games by a software change, costs are saved by not having to replace the machine.

[0060] Fig. 16 is a perspective view of touch screen 42, where certain areas 104, 105, and 106 are raised to give the player the impression of physical buttons. Examples of the raised areas may be for max bet, bet per line, and spin reels. An actual touch screen may have many more raised portions. The identity of each raised area is displayed on the raised area. The displayed identities of the areas and their functions may be changed as described above. The touching of any portion of a raised area performs the designated function.

[0061] In one embodiment, each raised area 104-106 is a separate, rigid touch screen that may be pressed downward by the player. The separate touch screens may use an LCD, TFT, or any other type of display. The player receives satisfying tactile feedback by the pressed area hitting a movement limiter or by any other form of tactile feedback. A resilient member behind each raised touch screen area 104-106 urges the area forward. The actuation of the function associated with a raised area 104-106 may be by a conventional detector detecting the capacitive change in the area 104-106 when the player touches the area.

[0062] In an alternative embodiment, the raised areas 104-106 are portions of a transparent plastic sheet that overlies a single flat touch screen. Pressing on a raised area of the plastic sheet brings the player's finger close

enough to the underlying touch screen to activate the associated function.

[0063] In an alternative embodiment, the raised areas 104-106 are raised portions of a flexible touch screen lamination overlying a conventional flat display screen. Touching the raised area activates the function associated with the raised area while giving the player tactile feedback when pushed.

[0064] In an alternative embodiment, a mechanical switch is actuated when the raised area 104-106 is pushed down a sufficient amount. In this case, the raised area is transparent and acts like a physical push button with a controllable display under the raised area identifying the function of the button. In such an embodiment, the raised portion or the display does not need to be a touch screen.

[0065] The touch screen 42 may have non-raised flat portions that display information and icons, where touching an icon performs a function, and may also have raised button portions, as described above, for particularly relevant functions, such as for betting and spinning the reels. For example, in Fig. 16, the portion of touch screen 42 surrounding raised areas 104-106 may include an icon to be touched for displaying a payout table on the main screen (or to perform some other secondary function), and the raised areas 104-106 may be for functions required to play the game.

[0066] Other implementations of a 3-dimensional control panel for player control of a game are also envisioned that combine the advantages of a changeable control panel with the characteristics of physical push buttons.

[0067] While particular embodiments of the present invention have been shown and described, it will be obvious to those skill in the art that changes and modifications may be made without departing from this invention in its broader aspects and, therefore, the appended claims are to encompass within their scope all changes and modifications that fall within the true spirit and scope of the invention.

Claims

1. A gaming method comprising:

conducting a main game, the main game having a plurality of possible outcomes, at least one of the outcomes enabling a secondary game;

after the main game generates said at least one of the outcomes, enabling the secondary game, the secondary game comprising:

displaying a plurality of icons (84-88) to a player, each icon representing an unknown element (89);

displaying the elements (89) to a player without identifying which icons are associated with the elements; and

receiving player selection signals conveying a selection of at least one of the icons.

2. The method of Claim 1 wherein displaying the elements to a player comprises displaying award values (89).

3. The method of any of the preceding claims wherein displaying the elements to a player comprises displaying multiplier values (80).

4. The method of any of the preceding claims wherein there are N icons (84-88), and the player is only allowed to select M of the icons, where $M \leq N$.

5. The method of any of the preceding claims wherein there are N icons (84-88), and the icons, if selected, convey award values, the method further comprising:

displaying to the player M multiplier values, where $M \leq N$; and

allowing the player to apply a multiplier value to a selected icon.

6. The method of any of the preceding claims further comprising allowing the player to choose only one icon (84-88) per display screen in the secondary game.

7. The method of any of the preceding claims further comprising revealing an element associated with one of the icons (84-88) and allowing the player to either keep that element or select a different icon.

8. The method of Claim 7 wherein revealing an element comprises requiring a player to wager one or more credits to reveal an element.

9. The method of Claim 7 wherein revealing an element comprises allowing a player to play game of chance, where a winning outcome of the game of chance reveals the element.

10. A gaming device comprising:

a display area (12) for displaying a main game, the main game having a plurality of possible outcomes, at least one of the outcomes enabling a secondary game; and

at least one processor (60) and display (12, 14) for displaying the secondary game, the second-

ary game comprising:

displaying a plurality of icons (84-88) to a player, each icon representing an unknown element (89);

displaying the elements (89) to a player without identifying which icons are associated with the elements; and

receiving player selection signals conveying a selection of at least one of the icons.

11. The device of Claim 10 wherein displaying the elements (89) to a player comprises displaying award values.

12. The device of Claim 10 or 11 where there are N icons, and the player is only allowed to select M of the icons, where $M < N$.

13. The device of any of Claims 10 through 12 wherein there are N icons, and the icons, if selected, convey award values, the secondary game further comprising:

displaying to the player M multiplier values, where $M < N$; and

allowing the player to apply a multiplier value to a selected icon.

14. A gaming method comprising:

conducting a main game, the main game having a plurality of possible outcomes, at least one of the outcomes enabling a secondary game;

after the main game generates said at least one of the outcomes, enabling the secondary game, the secondary game comprising:

displaying a plurality of icons (84-88) to a player, each icon representing an unknown element (89);

revealing at least one element (89) to the player;

allowing the player to take the revealed element (89) or select one of the remaining unknown elements (89); and

receiving player selection signals conveying a selection of at least one of the icons (84-88).

15. The method of Claim 14 wherein one of the unknown elements (82) ends the secondary game, and another of the unknown elements (82) enables the player to continue on to a next level.

16. The method of Claim 14 or 15 further comprising requiring the player to pay in order to reveal at least one element to the player.

17. A gaming device comprising:

at least one processor (60), the at least one processor comprising a processor programmed to carry out a game on a main display (12);

a main display (12) for displaying the game; and

a touch screen (42), separate from the main display, for displaying player input icons for controlling the game and for generating signals upon the player touching displayed icons to control the game.

18. The device of Claim 17 wherein the main display is a video screen (12).

19. The device of Claim 17 or 18 wherein the player input icons comprise virtual buttons.

20. The device of any of Claims 17 through 19 wherein the at least one processor (60) is programmed for allowing the player to select which icons to display on the touch screen.

21. The device of any of Claims 17 through 20 wherein the at least one processor (60) is programmed for allowing the player to select the location on the touch screen (42) of at least one virtual button.

22. The device of any of Claims 17 through 21 wherein the at least one processor (60) is programmed for allowing the player to select a size of virtual buttons to display on the touch screen (42).

23. The device of any of Claims 17 through 22 wherein the at least one processor (60) is programmed for allowing the player to select a language identifying virtual buttons displayed on the touch screen (42).

24. The device of any of Claims 17 through 23 wherein the at least one processor (60) is programmed to change identities of virtual buttons displayed on the touch screen (42).

25. The device of any of Claims 17 through 24 wherein the at least one processor (60) is programmed to change identities of virtual buttons displayed on the

- touch screen (42) to only display buttons that a player can use for a present game.
26. The device of any of Claims 17 through 25 wherein the at least one processor (60) is programmed to highlight certain virtual buttons displayed on the touch screen (42). 5
27. The device of any of Claims 17 through 26 wherein the touch screen (42) comprises an actuator (104-106) having displayed within the boundaries of the actuator at least one displayed player input icon to control the game; the actuator, when pressed by a player, causing control signals to be generated for carrying out a function associated with the at least one player input icon displayed within the boundaries of the actuator, the actuator comprising a moveable portion for being pressed by a player. 10 15 20
28. The device of Claim 27 wherein downward movement of the actuator (104-106) causes the generation of the control signals.
29. The device of Claim 27 wherein touching the actuator (104-106) causes the generation of the control signals. 25
30. A method carried out by a gaming device comprising: 30
- displaying a game to a player on a main display (12); and
- receiving player inputs for controlling the game via a touch screen (42), the touch screen being separate from the main display. 35
31. A gaming device comprising: 40
- at least one processor (60), the at least one processor comprising a processor programmed to carry out a game on a main display (12);
- a main display (12) for displaying the game;
- a joystick (102) for enabling a player to control an aspect of the game; and
- a payout device (32, 62) for granting an award to a player for a winning outcome of the game. 45
32. The device of Claim 31 wherein the joystick (102) comprises an actuator to enable the player to make a selection by controlling the actuator. 50 55
33. A method performed by a gaming machine (10) comprising:
- receiving currency in the form of one or more bills by a player inserting the one or more bills into the gaming machine;
- granting credits to the player after receiving the one or more bills, each credit representing a monetary value for wagering, each bill inserted into the gaming machine below a certain value generating credits equal to the monetary value of the bill, each bill inserted into the gaming machine at or above the certain value generating credits equal to the monetary value of the bill plus at least one extra credit; and
- carrying out a game pursuant to the player wagering one or more of the credits for playing the game.
34. The method of Claim 33 further comprising preventing the player from cashing out of the gaming machine after receiving the at least one extra credit until the player has wagered a certain amount.
35. The method of Claim 33 or 34 wherein inserting a bill of a first value generates a first number of extra credits and inserting a bill of a value greater than the first value generates a number of extra credits greater than the first number of extra credits.
36. A gaming machine (10) comprising:
- a display (12) for displaying a game;
- a monetary input device (22, 26, 61), wherein money provided to the monetary input device generates credits in the gaming machine for playing the game; and
- a player-controlled element (39, 42) for allowing the player to select the value of a single credit for wagering in the game.
37. The machine of Claim 36 wherein the player-controlled element comprises a button.
38. The machine of Claim 36 wherein the player-controlled element comprises a virtual button on a touch screen.
39. The machine of any of Claims 36 through 38 wherein the value of a single credit for wagering in the game may be selected by the player to be one of at least a first denomination and a second denomination, the second denomination being greater than the first denomination, wherein the monetary input device comprises a bill acceptor for receiving a bill

of at least a first value, the gaming machine further comprising processing circuitry for generating credits equal to the monetary value of the bill, the processing circuitry also generating one or more additional credits after receiving the bill if the second denomination is selected by the player. 5

40. A method performed by a gaming machine (10) comprising:

receiving money in a monetary input device (22, 26, 61); 10

generating credits in the gaming machine for playing a game in response to receiving money; 15

receiving a signal from a player-controlled element (42) identifying a player-selected value of a single credit for wagering in the game; 20

generating a signal identifying a number of credits wagered for a game;

displaying a game; and 25

awarding one or more credits for a winning outcome of the game. 30

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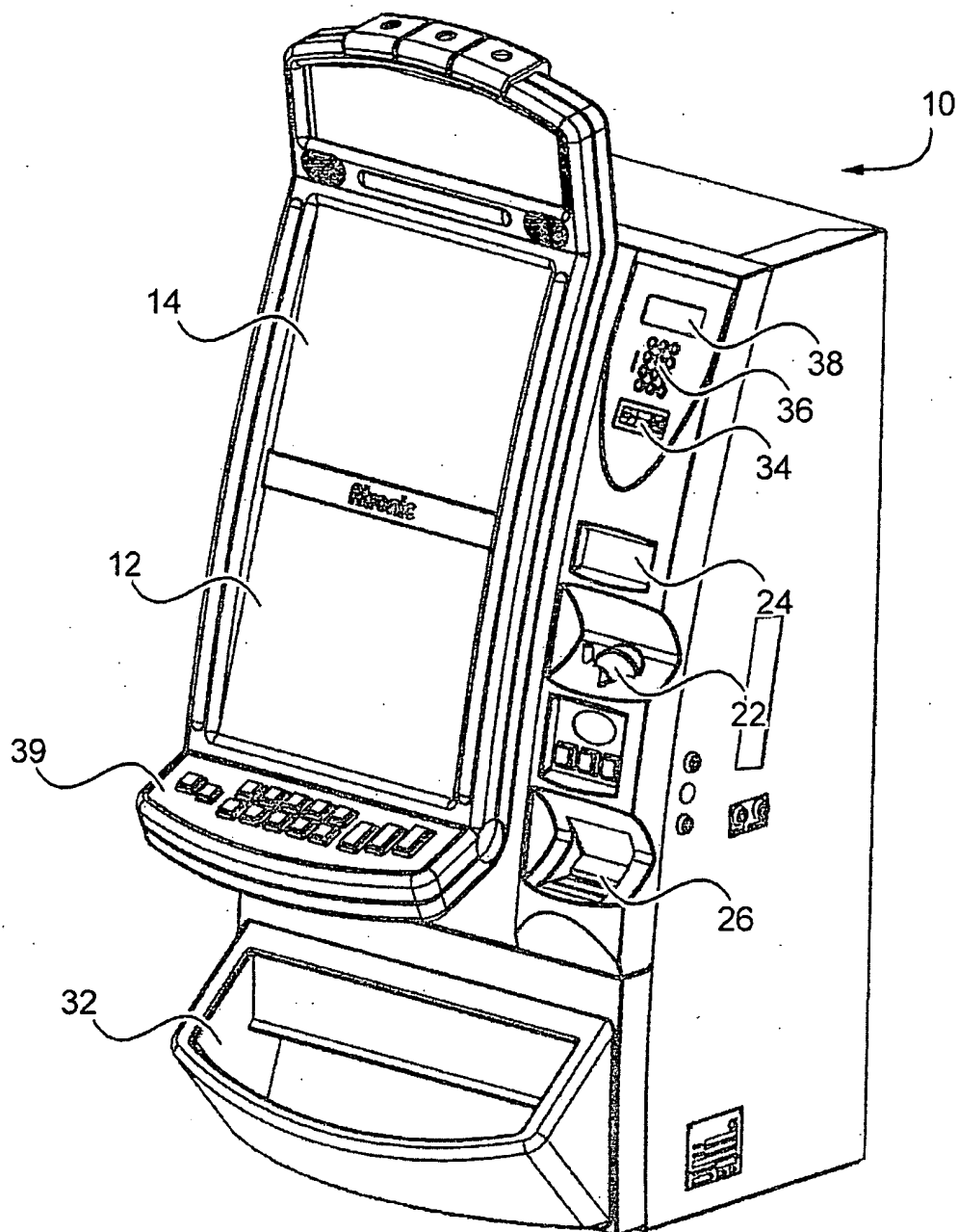


Fig. 1

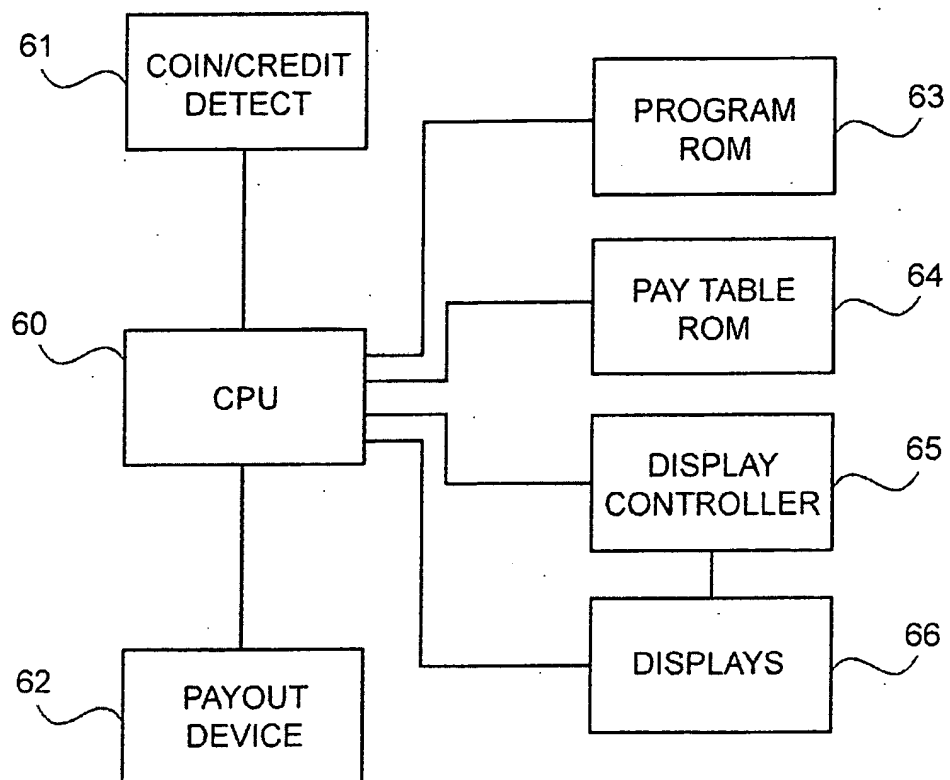


Fig. 2

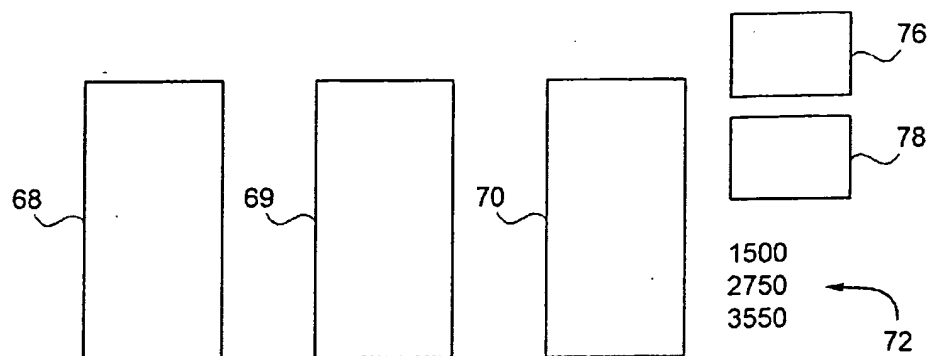


Fig. 3

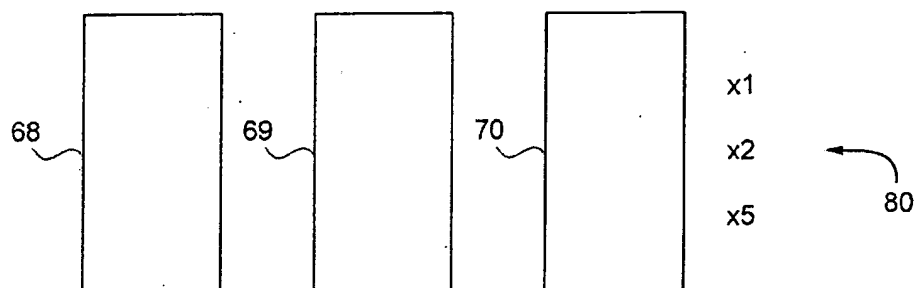


Fig. 4

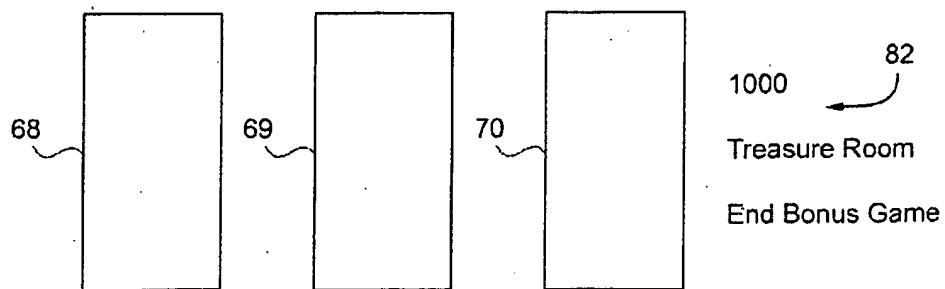


Fig. 5

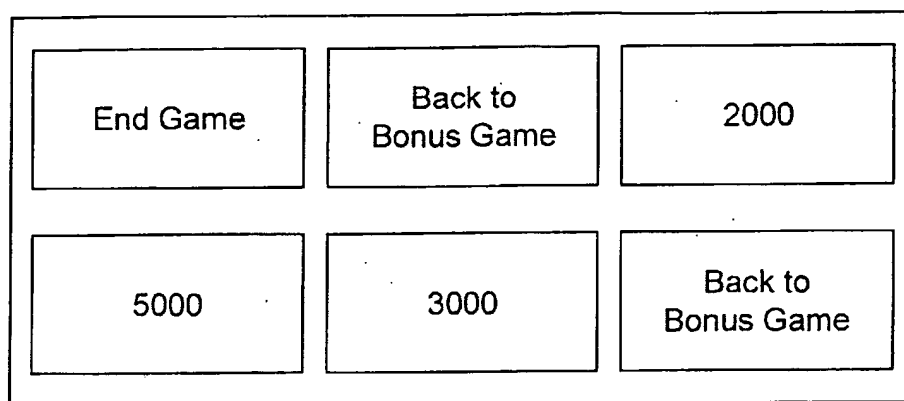


Fig. 6

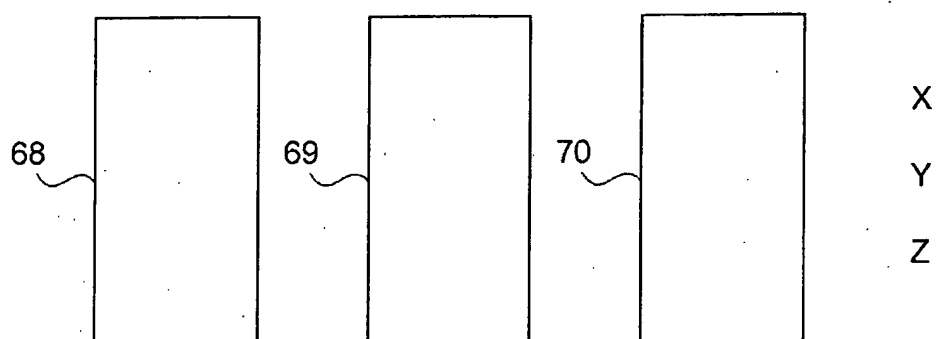


Fig. 7

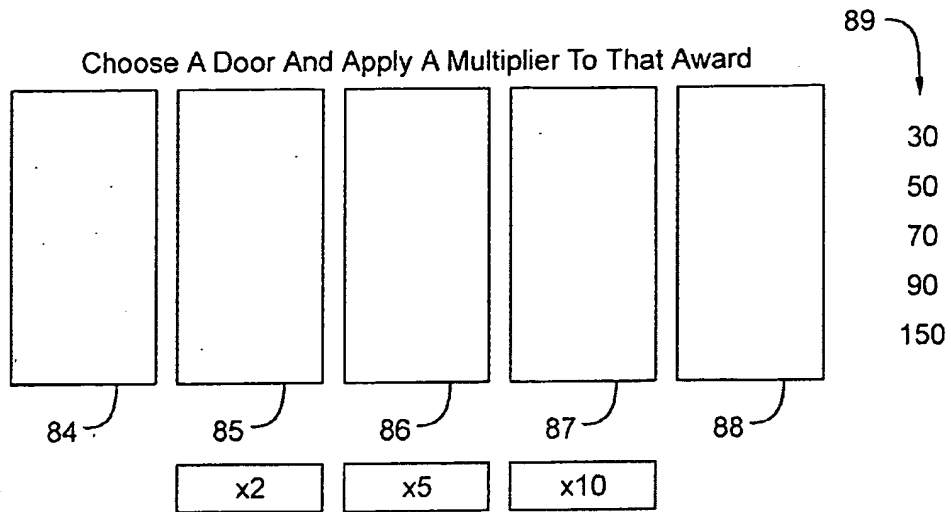


Fig. 8

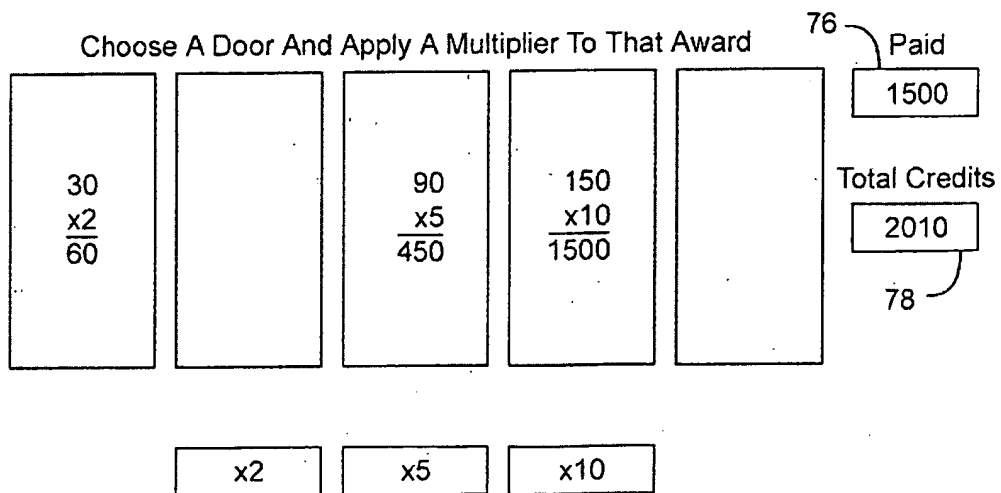


Fig. 9

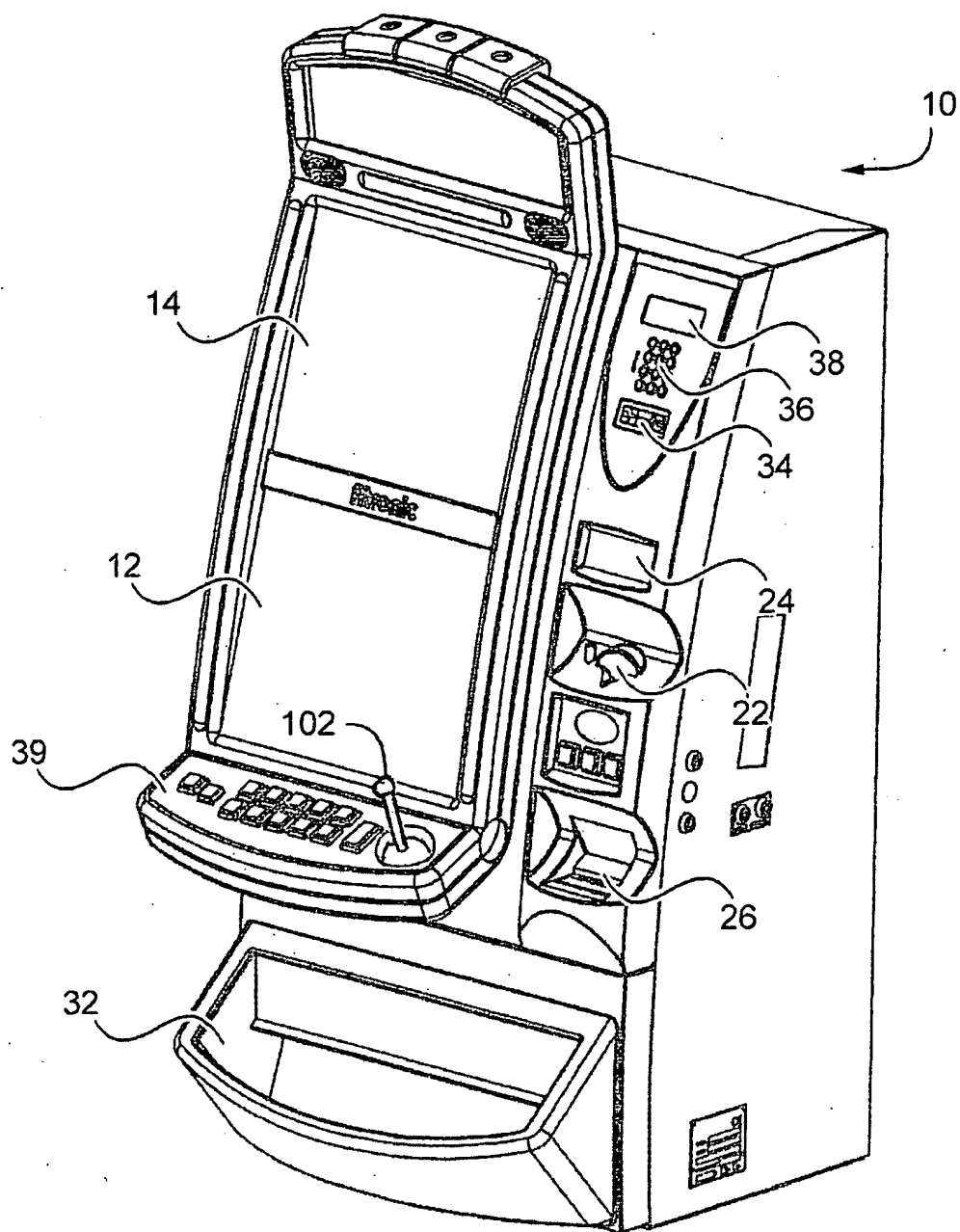


Fig. 10

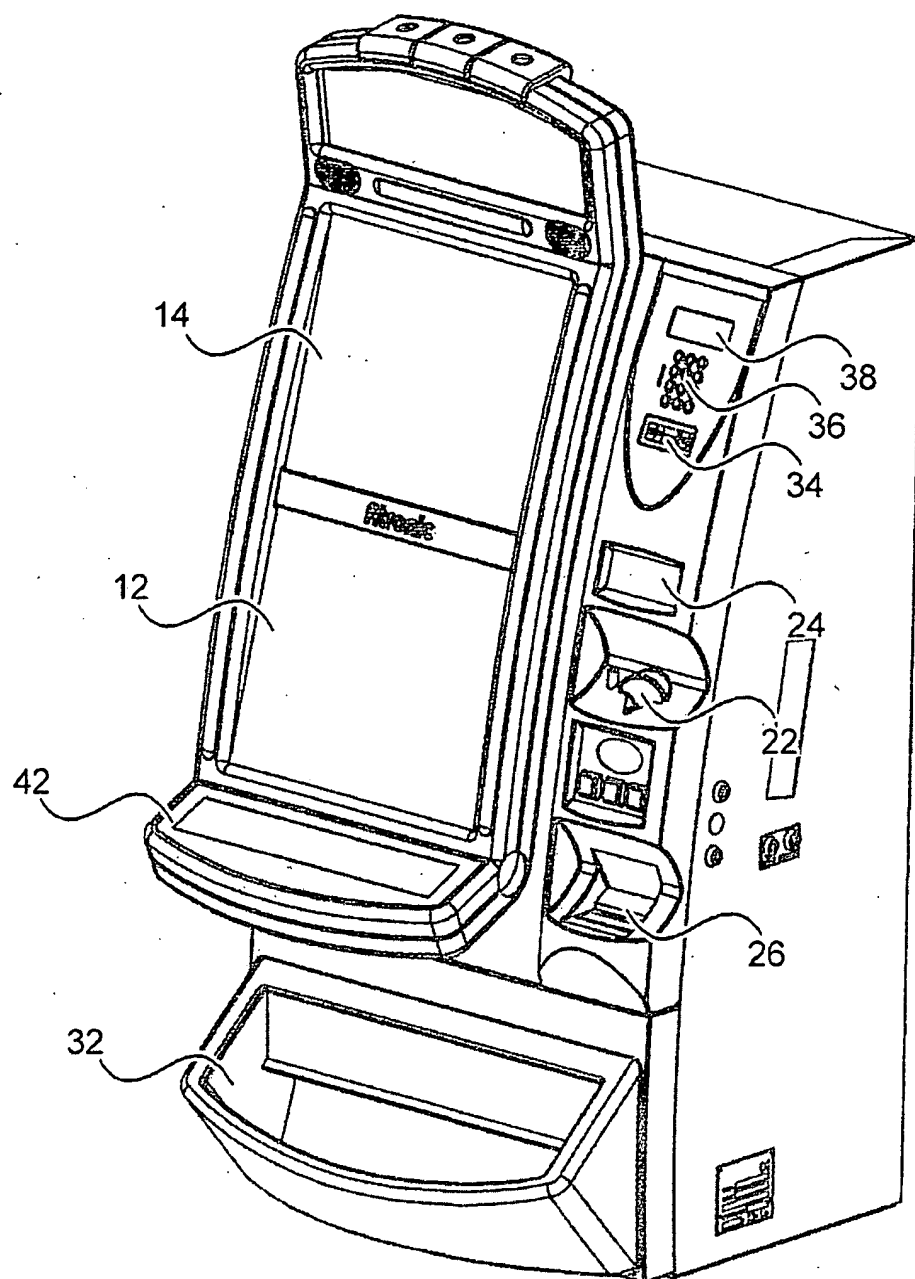


Fig. 11

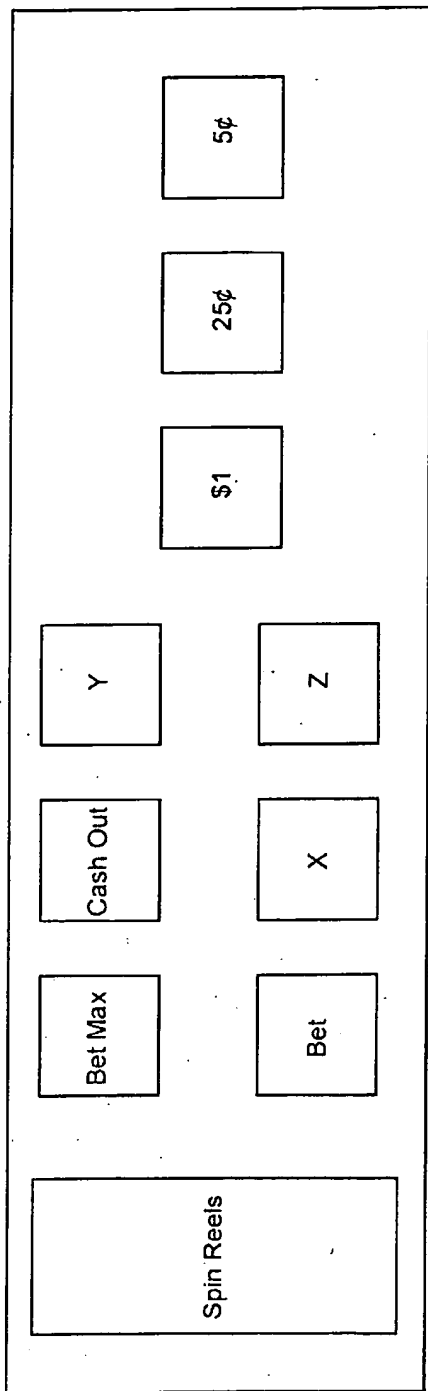


Fig. 12

42

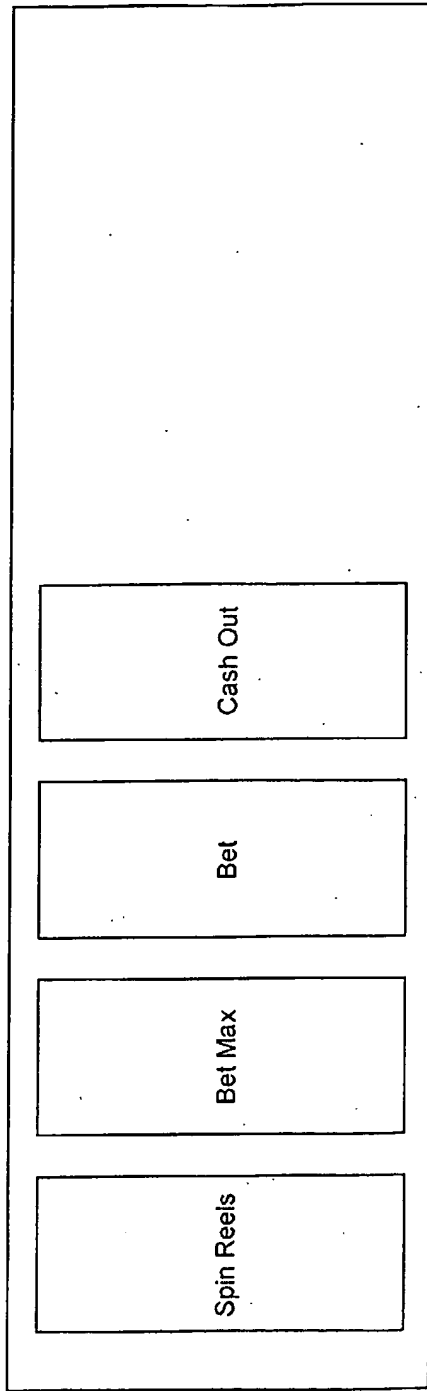


Fig. 13

42

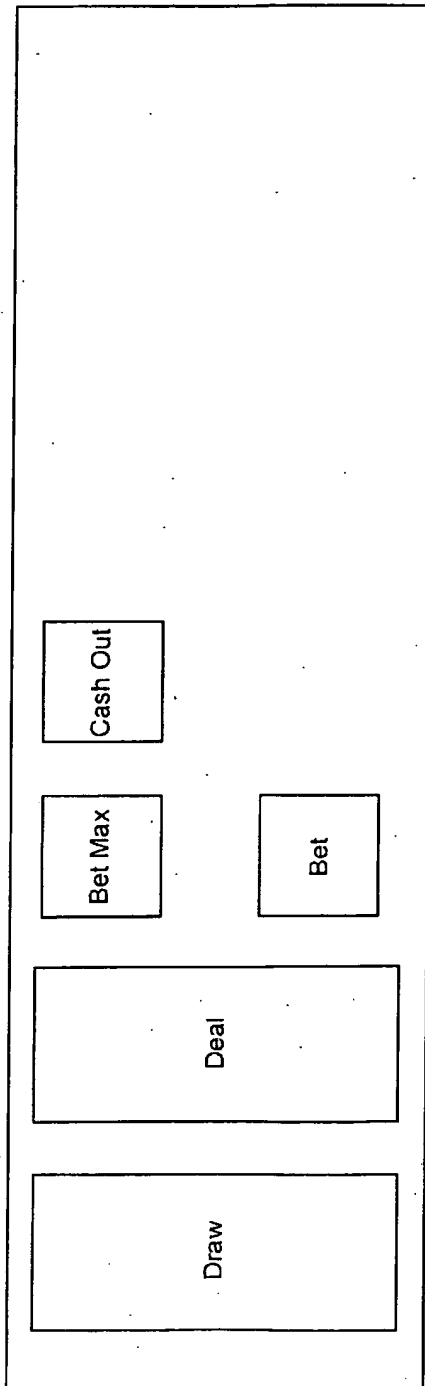


Fig. 14

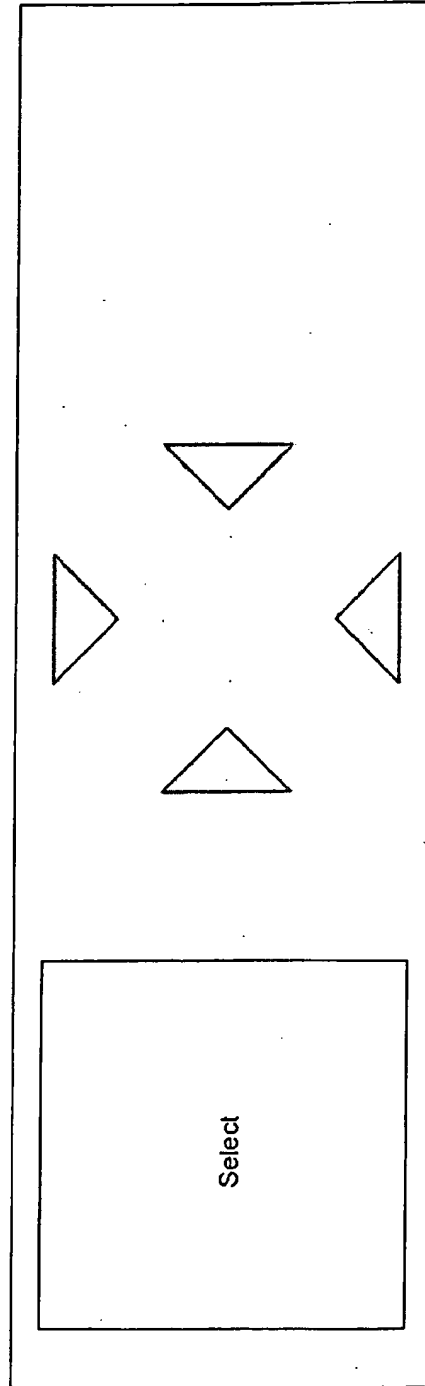


Fig. 15

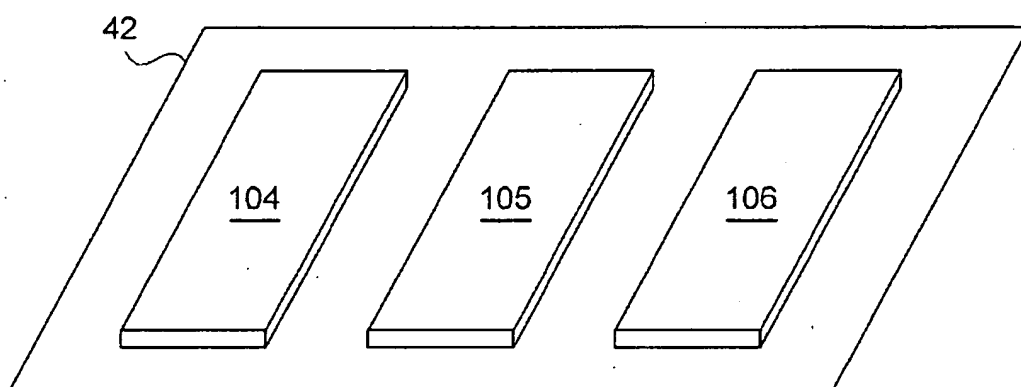


Fig. 16

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